REMARKS

Applicant appreciates the Examiner's thorough examination of the subject application and requests reconsideration of the subject application based on the foregoing amendments and the following remarks.

Claims 1-15 are pending in the subject application.

Claims 1-4 and 9-18 stand rejected under 35 U.S.C. §102 and/ or 35 U.S.C. §103. Claims 5-8 were objected to as depending from a rejected base claim, however, the Examiner indicated that these claims would be allowable if appropriately re-written in independent form.

Claim 1 is amended to more distinctly claim Applicant's invention.

Claim 3 is amended to avoid a possible antecedent basis concern.

Claim 5 is re-written in independent form as suggested by the Examiner.

Claims 10 is amended for clarity.

Claims 19-23 are were added to more distinctly claim embodiments and/or aspects of the present invention.

The amendments to the claims are supported by the originally filed disclosure.

The specification (i.e., Title) was objected to and correction required. The specification was amended to address the Examiner's objections as well as to correct some grammatical concerns. The amendments to the specification/ drawing figures do not introduce new matter because they either are editorial in nature or are supported by the originally filed disclosure.

35 U.S.C. §102 REJECTIONS

The Examiner rejected claims 1-4, 9, 10 and 14 under 35 U.S.C. §102(e) as being anticipated by Tanishima [USP 6,597,533]. Applicant respectfully traverses as discussed below. Because claims were amended in the instant amendment, the following discussion refers to the language of the amended claims. However, only those amended features specifically relied upon to distinguish the claimed invention from the cited prior art shall be considered as being made to overcome the cited reference. The following separately addresses the within rejection as to each of the independent claims

CLAIMS 1-4

Applicant claims, claim 1, a disk cartridge that includes a a disk for storing data, a cartridge for containing the disk in a rotatable manner, complete with a read/write window through which read/write means of an optical disk read/write device makes internal access, a shutter which, when the cartridge is inserted into the optical disk read/write device and the read/write window is opened, slides on the cartridge in a direction opposite to a direction of the insertion as a result of the insertion, and a lock member for engaging with the shutter to prevent the shutter from moving when the shutter is closed and disengaging from the shutter as a result of the insertion of the cartridge.

The lock member also includes an engagement section, a lever section and a spring section for pressing the lever section to apply thereto a rotational force in such a direction that the

lever section can engage with the shutter. The engagement section engages with the shutter near a side face of the cartridge and the lever section rotates around a rotation support point which is located closer to a middle front part of the cartridge in terms of the direction of the insertion than is the engagement section The spring section is rooted at the lever section, opposite the engagement section and between the engagement section and the rotation support point. Further a portion of the spring section extends past the rotation support point. Claim 1 was amended for clarity in the foregoing amendment so as to more clearly set forth the structure comprising the spring section of the present invention.

In contrast to the present invention, Tanishima does not disclose, describe nor include any teaching of the lock member of the present invention. More specifically, Tansishima does not, moreover cannot, disclose or describe the structure comprising the spring section as set forth in claim 1.

In the figures in Tanishima being referred to in the Office Action, a shutter lock arm 94 includes a spring member 94c that contacts an interior wall of the groove and urges an engaging member 42B towards the engaging projection 86a. It also is provided in Tanishima that the shutter lock arm 94 retains the shutter in a closed position. See Tanishima col. 18, lines 48-55.

Also, the discussion referred to in the Office Action merely describes functionality of elements of the disk cartridge, but nowhere describes, discloses, teaches or suggests any specifics as to how the illustrated spring member 94c works. Therefore, it can hardly be said that the

specification in Tansishima discloses, describes, teaches or suggests the lock member including the spring section of the presently claimed invention.

Moreover, as set forth in claim 1, the spring section has an arrangement where the it is rooted at a specific location opposite to the engagement section and between the engagement section and rotation support point. It also is provided in the claimed disk cartridge that the spring section extends past the rotation support point. Such a configuration is not anywhere described in the specification of Tanishima and also is nowhere shown in the figures in Tanishima that are referred to in the Office Action as the basis for the rejection. In contrast to the present invention, the spring member in Tanishima extends from the shutter lock arm 94 in a direction that is away from the shaft 94a about which the shutter arm rotates. Consequently, it can hardly be said that Tanishima discloses or describes the structure comprising the spring section of claim 1.

Also, the disk cartridge of the present invention addresses an issue of how to provide a lock lever with a spring on a triangular corner of a square cartridge where the round disc does not exist. Superficially, and with Figures 1(a), 1(b) attached hereto (*i.e.*, annotated figures from subject application) the lock section (55) of a shutter 47 of a lock lever 54 needs to be positioned at an end of the triangular corner. The lock lever 54 moves around a rotation axis (58) to release the lock. If the spring is behind the lock section (55); the rotational movement of the lock lever 54 is interrupted by a cartridge wall due to the limited space before the cartridge wail in the triangular corner that is the lock lever 54 does not rotate smoothly due to the wall and spring. Thus, with the disk cartridge of the present invention this problem is prevented from occurring.

In contrast to the present invention and according to the cited reference, a spring 94c is behind a lock section 86. Thus, the movement of the lock lever 94b is interrupted by a cartridge wall (wall is hatched in Figure 31). The cited reference therefore cannot solve the issue unlike the present invention.

As to claim 2, this claim includes the further limitations that a tip of the spring section is displaced on a wall and that an angle of the wall is specified so as to be equal to an angle between:

(i) a position of a tip of the spring section of the lock member displaced by an amount equivalent to a predetermined load when the lock member is in engagement with the shutter and

(ii) a position of the tip of the spring section when the lock member is not in engagement, the position being an addition of an angular displacement of the spring section when the lock member is in engagement and an angle less than half the angular displacement of the lock member.

As support for the rejection, the Office to figure 31-34 in Tanishima. Applicant would first note that Tanishima only indicates that the spring member contacts an interior wall of the groove. There is no mention anywhere in Tanishima of any dimensional, angular or sloping criterion or considerations as to this interior wall. Moreover, the figures in Tanishima illustrate the interior wall as being parallel to a side of the cartridge and parallel to the insertion direction. Consequently, it can hardly be said that this necessarily discloses that the an angle of the wall on which the tip of the spring section is displaces is specified so as to be equal to an angle between

(i) a position of a tip of the spring section of the lock member displaced by an amount equivalent to a predetermined load when the lock member is in engagement with the shutter and (ii) a position of the tip of the spring section when the lock member is not in engagement, the position being an addition of an angular displacement of the spring section when the lock member is in engagement and an angle less than half the angular displacement of the lock member.

Claim 3 adds the further limitation that the tip is provided in a movable manner and that the cartridge includes a regulator section for regulating movement of the tip. Claim 4 includes the further limitation that a sliding section is provided in the tip of the spring section. Tanishima nowhere describes a regulator section for regulating movement of the end of the spring member 94c in Tanishima and moreover, such a functionality cannot be inferred from the cartridge disclosed and illustrated in Tanishima.

In the present claimed invention, the lever section is rotated about the rotating support point whereby the tip is moved in a direction towards an outside surface of the cartridge. As such, the claimed disk cartridge further includes the regulator section to regulate such movement of the tip. In contrast, in Tanishima, there is not structure to regulate the movement of the end of the spring member because the end, it moves at all, moves along the surface of the interior wall without any regulation.

It is respectfully submitted that for the foregoing reasons each of claims 1-4 are distinguishable from the cited reference.

CLAIM 9

Applicant claims, claim 9, a disk cartridge including a disk for storing data, a cartridge for containing the disk in a rotatable manner, complete with a read/write window through which read/write means of an optical disk read/write device makes internal access; a shutter which, when the cartridge is inserted into the optical disk read/write device and the read/write window is opened, slides on the cartridge in a direction opposite to a direction of the insertion as a result of the insertion; and a lock member for engaging with the shutter to prevent the shutter from moving when the shutter is closed and disengaging from the shutter as a result of the insertion of the cartridge.

The lock member includes an engagement section for engaging with the shutter near a side face of the cartridge, a lever section an a spring section. The lever section rotates around a rotation support point which is located closer to a middle front part of the cartridge in terms of the direction of the insertion than is the engagement section. The spring section presses the lever section to apply thereto a rotational force in such a direction that the lever section can engage with the shutter. The spring section also is adapted so that a pressing force applied to the lever section by the spring section as a result of the lock member being released from the engagement with the shutter is smaller than a pressing force applied as a result of a change in an angle between the spring section and the lever section, the change being equal to an angle by which the lock member is displaced when the lock member is released from the engagement.

As indicated in the discussion above regarding claim 1, Tanishima nowhere describes the operation of the spring member 94c, more specifically there is no discussion anywhere in Tanishima as to how the spring member 94c moves with respect to the shutter lock arm 94, Moreover, that shown or illustrated in the figures cited in support for the rejection do not depict how the spring member 94c moves with respect to the shutter lock member. As such, it can hardly be said that the figures in Tanishima disclose, expressly or inherently, the lock member including the spring section of the presently claimed invention. The spring section also is adapted so that a pressing force applied to the lever section by the spring section as a result of the lock member being released from the engagement with the shutter is smaller than a pressing force applied as a result of a change in an angle between the spring section and the lever section, the change being equal to an angle by which the lock member is displaced when the lock member is released from the engagement.

It is respectfully submitted that for the foregoing reasons claim 9 is distinguishable from the cited reference.

CLAIMS 10, 14

Applicant claims, claim 10, a disk cartridge that includes a disk for storing data, a cartridge for containing the disk in a rotatable manner, complete with a read/write window through which read/write means of an optical disk read/write device makes internal access, and a shutter which slides parallel to a direction of insertion of the cartridge into the optical disk

read/write device to open/close the read/write window. Also included is a lock member for engaging with the shutter to prevent the shutter from moving when the shutter is closed and rotating around a rotation support point provided inside a cartridge-side groove formed on a side face of the cartridge near a front of the cartridge in terms of the direction of insertion. The lock member of the cartridge is provided facing inwards on a side face of a cartridge holder in the optical disk read/write device. The lock member also is adapted so that a contact surface where the lock member contacts an unlocking member for releasing the lock member from the engagement with the shutter when the cartridge is inserted has a perpendicular surface that is perpendicular to the direction of the insertion of the cartridge.

As indicated in the subject application (*e.g.*, see pages 48, 50-51 and Figs 18(a)-18(b) thereof) with conventional devices, the relative positions of the cartridge and the unlocking member in a direction perpendicular to the insertion direction varies for example, and as illustrated in Figures 18(a)-18(b), because the locking lever contacts the unlocking members on the slanting face. Consequently, the timing to unlock the shutter also varies due to the slanting contact surface between the lock lever and the unlocking member, thereby causing the shutter to fail to open.

It should be recognized that the shutter locking arm 94 illustrated in each of the figures from Tanishima referred to in the Office Action, is arranged so as to present a slanted surface. As such, it necessarily follows that Tanishima cannot disclose, describe nor teach a lock member that is adapted so that a contact surface where the lock member contacts an unlocking member

for releasing the lock member from the engagement with the shutter when the cartridge is inserted has a perpendicular surface that is perpendicular to the direction of the insertion of the cartridge as is claimed by Applicant.

As to claim 14, this claim adds the further limitation that the part of the unlocking members that contacts the lock member is provided so as to be substantially parallel to the contact surface of the lock member. In contrast to the claimed invention, in Tanishima, the contact surface of the shutter lock member is slanted and the contact surface of the unlocking member is essentially perpendicular to the insertion direction. As such, it can hardly be said that the contact surface of the part of the unlocking member that contacts the shutter lock arm is substantially parallel to the contact surface of the lock member.

It is respectfully submitted that for the foregoing reasons claims 10 and 14 are distinguishable from the cited reference.

The following also shall apply to each of the foregoing remarks.

As the Federal Circuit has held, in deciding the issue of anticipation, the trier of fact must identify the elements of the claims, determine their meaning in light of the specification and prosecution history, and identify *corresponding elements* disclosed in the allegedly anticipating reference (emphasis added, citations in support omitted). *Lindemann Maschinenfabrik GMBM v. American Hoist and Derrick Company et al.*, 730 F. 2d 1452, 221 USPQ 481,485 (Fed. Cir. 1984). In concluding that the `770 Patent did not anticipate the claims, the Federal Circuit in

Lindemann Maschinenfabrik GMBM v. American Hoist and Derrick Company et al., at 221 USPQ 485-486, further provides that:

> The '770 patent discloses an entirely different device, composed of parts distinct from those of the claimed invention, and operating in a different way to process different materials differently. Thus, there is no possible question of anticipation by equivalents. Citations omitted.

It is clear from the foregoing remarks that the allegedly corresponding elements In Tanishima do not in fact correspond to the elements or features of the claimed invention that the Office Action asserts correspond thereto. Thus, there can be no disclosure or teaching in Tanishima of Applicant's invention.

It is respectfully submitted that for the foregoing reasons, claims 1-4, 9 and 10 are patentable over the cited reference and satisfy the requirements of 35 U.S.C. §102(e). As such, this claim/ these claims, including the claims dependent therefrom are allowable.

35 U.S.C. §103 REJECTIONS

Claims 11-13 and 15-18 stand rejected under 35 U.S.C. §103 as being unpatentable over Tanishima [USP 6,597,533] as applied to claim 10 and further in view of Takahashi [USP 6,236,541]. Applicant respectfully traverses as discussed below. Because claims were amended in the instant amendment, the following discussion refers to the language of the amended claims. However, only those amended features specifically relied upon to distinguish the claimed

invention from the cited prior art shall be considered as being made to overcome the cited reference.

In the foregoing remarks regarding claim 10, it is indicated that Tanishima does not disclose nor describe the disk cartridge of claim 10 and more specifically does not describe nor disclose the lock member and unlocking arrangement as is claimed by Applicant. It also is submitted that Tanishima also fails to provide any teaching suggestion or motivation for such a disk cartridge. It is further submitted that Tanishima also fails to provide any teaching suggestion or motivation for modifying the disk cartridge described in Tanishima so as to yield the disk cartridge of the present invention. As such and at least for this reason, each of claims 11-13 and 15-18 are patentable over the cited combination of references.

As to the secondary reference, Takashashi, this reference also fails to overcome the noted deficiencies in the primary reference as well as fails to provide any motivation, teaching or suggestion for modifying the disk cartridge described in Tanishima so as to yield the disk cartridge of the present invention. Consequently, the cited combination also fails to yield the invention as set forth in claim 10. As such, and at least for this further reason each of claims 11-13, and 15-18 are patentable over the cited combination of references.

As provided in MPEP 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F. 2d 1071, 5

USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F. 2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). As provided above, the cited references include no such teaching, suggestion or motivation.

Furthermore, and as provided in MPEP 2143.02, a prior art reference can be combined or modified to reject claims as obvious as long as there is a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 19866). Further, and as provided in MPEP-2143, the teaching or suggestion to make the claimed combination and the reasonable suggestion of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). As can be seen from the forgoing discussion regarding the disclosures of the cited references, there is no reasonable expectation of success provided in any of the references.

It is respectfully submitted that for the foregoing reasons, claims 11-13 and 15-18 are patentable over the cited reference(s) and thus, satisfy the requirements of 35 U.S.C. §103. As such, these claims, including the claims dependent therefrom are allowable.

CLAIMS 19-23

As indicated above, claims 19-23 were added to more distinctly claim embodiments/ aspects of the present invention. These claims are clearly supported by the originally filed disclosure, including the originally filed claims. It also is respectfully submitted that these added claims are patentable over the cited prior art on which the above-described rejection(s) are based.

SEPCIFICATION OBJECTIONS/ AMENDMENTS

The Examiner objected to the specification of the subject application.

More particularly, the Examiner objected to the TITLE as not being descriptive of the invention being claimed and requested correction. The TITLE has been amended in the instant amendment to address the Examiner's objections. As such, the TITLE, as amended, is considered acceptable.

During preparation of the within response, Applicant identified some paragraphs in which some editing for grammatical purposes would be advantageous for clarity of expression. As such, the foregoing amendments to the specification also include such amendments.

It is respectfully submitted that for the foregoing reasons satisfies applicable Patent laws and rules and, therefore is considered acceptable.

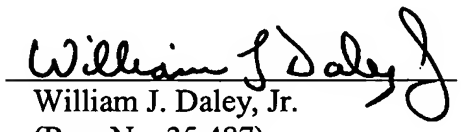
It is respectfully submitted that the subject application is in a condition for allowance. Early and favorable action is requested.

Because the total number of claims and/or the total number of independent claims post amendment now exceed the highest number previously paid for, a check is enclosed herewith for the required additional fees. However, if for any reason a fee is required, a fee paid is inadequate

or credit is owed for any excess fee paid, the Commissioner is hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,
Edwards & Angell, LLP

Date: June 25, 2004

By: 

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